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THE UNITED STATES OF AMERICA

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UNITED STATES DEPARTMENT OF COMMERCE
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March 17, 2000

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM
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OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT
APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A
FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: 09/249,727

FILING DATE: February 13, 1999

PCT APPLICATION NUMBER: PCT/US00/02222

By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS



W. Montgomery
W. MONTGOMERY
Certifying Officer

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DOCUMENT**

SUBMITTED OR TRANSMITTED IN
COMPLIANCE WITH RULE 17.1(a) OR (b)

09/684,403 :A63

1-525 U.S. PTO
02/13/99

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Date of Deposit: **February 13, 1999**

I hereby certify that this is being deposited with the United States Postal Service "Express Mail, Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Box PATENT APPLICATRION, Asst. Commissioner for Patents, Washington, D.C. 20231.

By: Elmer Galbi

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1-525 U.S. PTO
09/249727
02/13/99

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

Transmitted herewith for filing is the following new patent application:

Inventors:

Jonathan Ehrlich Address 150 Highibourne Ave, Toronto, Ontarios Canada M5P2J7
James Rose Address 1473 Shotwell Street, San Francisco, CA, 94110
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Title: AGGREGATING ON-LINE PURCHASE REQUESTS

Attorney Docket Reference: EWG-086-C

Enclosed are:

- 1) A specification of the invention (27 pages) and drawings (14 sheets)
- 2) A small entity form.
- 3) A Declaration by the Inventors
- 4) A return addressed postcard for filing notification
- 5) A Power of Attorney
- 6) A check for **\$497.00** (EWG-#2496) to cover the filing fee calculated as follows:

Base Filing Fee (small entity)-----	\$380.00
Three extra independent claims -----	117.00
Total Filing Fee -----	\$497.00

Please charge any deficiency in the enclosed fee (or credit any overpayment) to Deposit account 500,433 which is in the name of Elmer Galbi.

Please direct all correspondence to:

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Respectfully submitted,

Elmer Galbi

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002449727-021399

1

2 **Aggregating On-Line Purchase Requests**

3 **Related Application:**

4 The present application is a continuation in part of co-pending application serial
5 number _____ filed February 1, 1999.

6

7 **Field of the Invention:**

8 The present invention relates to the internet and more particularly to a method and
9 system for selling products and helping customers make purchases via the internet.

10

11 **Background of the Invention:**

12 Conducting electronic commerce over the internet has become very common. Many
13 products are sold over the internet utilizing a relatively conventional buyer-seller
14 transaction. That is, a merchant posts a description of products on a Web page
15 along with the price, a purchaser who sees the web page and who wants to
16 purchase the product then submits an order including a credit card number to the
17 seller's Web site. The merchant charges the purchaser's credit card and ships the
18 product to the purchaser.

19

20 The Internet also facilitates other types of commercial transactions and several other
21 internet marketing systems that are in widespread use. The other types of systems
22 that are in widespread use include on-line auction systems and systems where the
23 purchaser provides a price and the system then provides the product or service if the
24 price provided by the purchaser meets certain criteria. Examples of prior art systems
25 are shown in issued US patents 5,835,896 and 5,710,887.

26

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The *Agrobacterium* strains were grown in the YEA medium for 24 h at 28°C. The cell concentration of the strains was adjusted to 1.0 × 10⁸ cells/ml. The cell suspension was mixed with the plant tissue and the transformation efficiency was determined. The results were expressed as the mean ± SD of three independent experiments. The asterisks indicate the significant difference between the strains at the same concentration of the cell suspension.

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1 Once a buying cycle is closed, the system completes the transaction in one of two
2 ways. The first technique for filling orders is used where the operator of the web site
3 has previously negotiated a contract or arrangement with a partner (i.e. a supplier,
4 distributor, or other fulfillment agency) to supply a product according to a particular
5 price-volume schedule. In this situation once the buy cycle is closed, the order is
6 processed and sent to the partner for fulfillment of the order.

7
8 The second technique for filling orders is a reverse auction where suppliers bid
9 against each other to fill orders. With this technique after a buy cycle closes, the
10 order is put together and put out for bid, much like a request for proposal (RFP).
11 Multiple suppliers are urged to submit bids or contracts to fulfill the order. The RFP
12 and the bids can be taken either through electronic means, much like a stock
13 exchange, or through more traditional, manual processes. Once a bid is accepted,
14 the order is then sent to that supplier for fulfillment. The orders are filled either at the
15 prices originally posted or at a lower price if a lower bid is obtained. The prices
16 initially posted on the web site for products subject to a reverse auction process can
17 either be an estimate of what prices the suppliers will bid or the initially posted prices
18 can be prices provided by a back-up supplier who has agreed in advance to provide
19 product at this price if no other supplier bids lower. Other alternatives described
20 below are also possible.

21
22 Text on the web site will tell prospective customers how orders for each product will
23 be filled and any other special rules applicable to a particular buy cycle. That is,
24 prospective customers will be informed if orders are to filled at pre established prices
25 in accordance with a pre-established supplier contract or if the prices posted are
26 maximum prices that a customer will have to pay if no supplier submits a lower bid.

- 1 2) Web Design Resources Directory : Tools and Techniques for Designing Your
2 Web Pages by: Ray Davis, Eileen Mullin Published 1997
3 3) Microsoft Internet Information Server 4 : The Complete Reference (Complete
4 Reference) by: Tom Sheldon, et al / Paperback / Published 1998

5
6 The primary actions on the web site which implements the present invention take
7 place during what is termed a "buy-cycle". During a buy cycle, customers indicate
8 that they want to buy a particular product and orders are accumulated. The number
9 of orders accumulated during a buy cycle determines the price at which the particular
10 product is sold.

11
12 Figure 1 shows a block diagram of a web page referred to as the "order web page"
13 and designated as web page 2. The order web page includes:

- 14 a) a product description window 3 which includes a description of a particular
15 product,
16 b) a price-volume window 4 which lists the price for various volumes of the
17 product,
18 c) an orders received window 5 which lists the number of orders received
19 during the active buy cycle,
20 d) a "buy-button" 6 to indicate a buy decision,
21 e) a time remaining window 7 which shows the time remaining in the
22 particular buy cycle, and
23 f) a buy cycle closed window 8 which shows that the particular buy cycle has
24 been closed.
25 g) a heading and logo window 9 which gives information about the company.

The following is a specific example of a price schedule that appears in price volume window 4:

Items ordered in the cycle:	Unit price:
1-10.	500
11-30.	475
31-50.	450
50-100	425
100+	400

It is noted that Figure 1 is a block diagram of a web page. An actual web page would include colors and graphics to make the web page appealing to consumers. The web page could also include various other related information, links and choices.

Customers who visit the web site can order the product by pressing (i.e. clicking on) the buy button 6. The number of customers who have ordered the particular product during the particular buy cycle is shown in the orders received window 5. The time remaining in the particular buy cycle is shown in window 7. When the buy cycle ends, no further orders are accepted for the particular product during that particular buy cycle and the orders are filled through one of two ways. The first technique is used where a contract or arrangement has been pre negotiated with a partner (i.e. a supplier, distributor, or other fulfillment agency). In this situation once the buy cycle is closed, the order is processed and sent to the partner for fulfillment of the order. In situations where no supply contract has been pre negotiated, when the buy cycle closes, the order is put together and put out for bid, much like a request for proposal (RFP). Multiple suppliers are encouraged to submit bids and contracts to fulfill that order. The RFP and the bids can be handled either through electronic means, much

Table A.2: Price Structure for Sample Buy-Cycle

Slice Number	Number of Items		Price
	Minimum	Maximum	
0	0	3	\$10.00
1	4	9	\$9.75
2	10	11	\$9.00
3	12	49	\$8.00
4	50	199	\$6.50

Note:

1. By definition, a price structure as at least two (2) price slices.
2. The largest maximum number of items for the last price slice corresponds to the cut-off point, which, if reached, will end the buy-cycle.

In order to manage buy-cycles, the following operations are defined. Each buy-cycle is identified through a unique buy-cycle identifier called `buy_cycle_id`.

1. `Begin (buy_cycle_id, time_t)`, which initializes and starts a buy-cycle that will last until `time_t`,
2. `End(buy_cycle_id)`, which terminates the buy-cycle either manually or by being called from the buy-cycle watchdog, and
3. `Watchdog(buy_cycle_id)`, which automatically supervises the status of a selected buy-cycle.

The following operators are defined to determine state information about buy-cycles:

- 1 1. **Open**(buy_cycle_id), which returns a Boolean result on whether or not the buy-
- 2 cycle referenced by the unique buy-cycle identifier buy_cycle_id is active,
- 3 2. **No_slice**(buy_cycle_id), which returns the number of slices m for the specified
- 4 buy-cycle,
- 5 3. **Max**(buy_cycle_id), which returns n_m for the specified buy-cycle,
- 6 4. **Current**(buy_cycle_id), which returns the current number of purchase requests for
- 7 the buy-cycle, represented as $n_{current}$,
- 8 5. **Price**(buy_cycle_id, n), which returns the price point for the specified cycle with n
- 9 purchase requests, and
- 10 6. **Price_current**(buy_cycle_id)—the logical equivalent of
- 11 **price**(buy_cycle_id, $n_{current}$), which returns the price point corresponding to
- 12 the current number of purchase requests.
- 13
- 14 Figure 4 shows the process that is called whenever a defined buy-cycle needs to be
- 15 set into active mode. For example this could occur as indicated by box 37 in Figure
- 16 3. As indicated by block 210, a subroutine named **open**() and which is shown in
- 17 Figure 7 determines if the particular buy cycle is already open. If the buy cycle called
- 18 is already open, this information is returned to the main program as indicated by
- 19 block 211. This could either mean that there has been some error or it could be a
- 20 notice to the main program to go to block 36 shown in Figure 3. As indicated by block
- 21 212, if the buy status is not active, the status is set to active. Next, as indicated by
- 22 block 213 the time limit for the buy cycle is set to a value $time_i$. As previously
- 23 indicated the value $time_i$ could either be a fixed value or it could be determined in a
- 24 number of ways dynamically.
- 25

1 At the end of a buy cycle, the subroutine shown in Figure 5 is called. First as
2 indicated by block 220, a determination of whether the cycle is already open is made
3 by the subroutine open(). If the buy cycle is not open, no action is taken as indicated
4 by block 221 and control is returned to the calling program. If the buy cycle is open,
5 the status is set to inactive as indicated by block 222 and the buy cycle administrator
6 (which could be another program or a human operator) is notified as indicated by
7 block 223. At this point the orders that have been entered during the buy cycle are
8 executed in a conventional manner. That is the products are shipped and the
9 customer's credit cards are charged.

Figure 6 shows the subroutine called "watchdog" which operates while a buy cycle is active. The watchdog process oversees the status of a specific buy-cycle from its inception until the buy-cycle is either terminated manually or when certain buy-cycle-specific time or volume limits have been achieved. As indicated by block 230 and 231 a check is first made to insure that the buy cycle is in fact open. As indicated by blocks 232, 233 and 234, the current time and the buy cycle expiration time are obtained and compared. As indicated by block 234 if the if the buy cycle time has ended the subroutine end() is called. Blocks 235, 236 and 237 indicate that if the buy cycle is active, the current number of requests is obtained and compared to the maximum number of requests. If the number of requests exceeds the maximum number allowed for that buy cycle, the buy cycle is ended. If the number of requests is less than the maximum, the subroutine goes to sleep for a period of time as indicated by block 239 and it then repeats. Providing such a sleep period for such a subroutine is conventional.

at the price in the selected offer and product is shipped. A variety of techniques can be used to handle the situation in which no supplier offers to provide the product at a price that is at least as low as the price posted. For example, customers could be told on the web site that if this situation occurs, the orders will not be filled. Alternatively, the system could be operated on the basis that the company operating the web site will pay for any difference between the posted price and lowest price bid by suppliers. Still another alternative is that before any product is offered at a posted price an arrangement will be negotiated with a back-up supplier who agrees to provide the product at the posted price.

10

11 The present invention provides for two types of revenue flows for the operator of the
12 web site:

13 **Subscription fees - designed to drive value for repeat buyers and to raise customer**
14 **switching costs. Customers will pay a modest subscription fee, to be renewed**
15 **periodically such as annually.**

16

17 Transaction fees - charged on each purchase through the system (subscription
18 customers will be exempt from all transaction fees). Transaction fees are designed
19 to encourage trial and facilitate the purchase of one-off goods.

20

21 In addition to the web pages described above, the web site which implements the
22 present invention can include a variety of other web pages which together form a
23 complete site. For example the site includes a "home" page which is a starting point
24 for customers to enter the system and a main page which provides links to other
25 information such as information for suppliers who want to offer products, information

j) the time and date when this cycle will close.

2 k) Toolbar with standard buttons for items such as Help, About Us, Feedback,

3 Account info, etc.

4 I) Special Buttons for items such as:

s - quantity box

6 - change quantity

7 after changing the quantity in this box, the customer can press a button to reload

8 the page. The refreshed quantity box will show the request quantity. To remove

9 the product from the shopping cart, the customer can either check the remove

10 box or change the quantity in the shopping cart to zero.

11 - Checkout button (with text , "please verify above information and click here to
12 continue")

13 m) Links to web pages which give:

14 - security policy

15 - returns and refund policy

16 - cycles in progress

17

18 The web site can include a “buy cycle ticker” that communicates what’s happening

19 on the buy cycles. The buy cycle ticker is similar to a stock ticker that runs across

20 TV and computer screens. It highlights a named product (i.e. notebook computer), a

21 brand (Toshiba); a current price (i.e. \$1200) and the number of buyers in the cycle

22 (e.g. 43). Two buy cycle tickers could be provided, one in a red color to show

23 immediately cycles closing, one in green to show cycles that will close later.

24

25 The site can include provisions by which a customer can activate during the

26 registration process so that the customer will be notified by e-mail of events such as:

}

relevant service offering for its members while increasing the perceived value of its community. All partners can be given the opportunity to place a branding message on all "Word-of-Mouth" emails sent by customers who have entered through their respective community site.

This co-branding opportunity will allow a partner to deliver its branding message to a large audience of prospective new members. By the nature of this endorsement (via an existing member), a partner has the opportunity to establish a trusted relationship with new members

As a Sponsor, a partner can be given the opportunity to participate in a revenue stream as generated directly by its members. For example a Sponsor could receive 20%-40% of all membership and transaction fees as generated by the web site that implements the invention.

The revenue sharing program will enable a partner to build a viable E-Commerce strategy while reinforcing the value of its membership

The preferred embodiment of the invention described above is only one example of how the present invention can be practiced. It should be understood that various changes in form and detail may be made without departing from the spirit of the invention. The scope of the invention is limited only by the appended claims.

[illegible]

2

1) A system for facilitating the purchase of products via the Internet and which operates in accordance with a buy cycle, said system comprising:

- a web server which posts a web page at the beginning of a buy cycle and which describes a product and which lists prices for various quantities of the product,
- a web server which accepts orders from purchasers and which tracks the number of purchasers in a buy cycle and which closes said buy cycle based upon pre-established criteria, and
- a web server which processes the orders received in a buy cycle.

11

12 2) The system recited in claim 1 wherein said buy cycle is closed after a fixed
13 amount of time.

14

15 3) The system recited in claim 2 wherein said web page post the length of said fixed
16 amount of time.

17

18 4) The system recited in claim 3 wherein said web page posts the amount of time
19 remaining in said fixed amount of time.

20

21 5) The system recited in claim 1 wherein said buy cycle is closed after a preset
22 number of orders has been received.

23

24 6) The system recited in claim 1 wherein said buy cycle is closed after the rate at
25 which orders are being received falls below a pre-established rate.

26

7) A system for facilitating the purchase of products via the internet and which operates in accordance with a buy cycle, said system comprising means which posts a web page at the beginning of a buy cycle and which describes a product and which lists prices for various quantities of the product, means which accepts orders from purchasers and which tracks the number of purchasers in a buy cycle and which closes said buy cycle based upon pre-established criteria, and means which processes the orders received in a buy cycle.

8) A method for facilitating the purchase of products via the internet during a buy cycle, said method comprising
posting a web page at the beginning of a buy cycle and which describes a product and which lists prices for various quantities of the product,
accepting orders from purchasers,
tracking the number of purchasers in a buy cycle,
closing said buy cycle based upon pre-established criteria, and
processing the orders received in a buy cycle.

19 9) The method recited in claim 8 wherein said buy cycle is closed after a fixed
20 amount of time.

22 10) The method recited in claim 9 wherein said web page post the length of said
23 fixed amount of time.

25 11 The method recited in claim 10 wherein said web page posts the amount of time
26 remaining in said fixed amount of time.

12) The method recited in claim 8 wherein said buy cycle is closed after a preset number of orders has been received.

13) The method recited in claim 8 wherein said buy cycle is closed after the rate at which orders are being received falls below a pre-established rate.

14) The method recited in claim 8 wherein said orders are processed by charging the cost of each order to the purchaser's credit card.

15) A system for helping customers buy products via the internet comprising,

- a web page that lists the price of a product at various volume levels,
- a program for establishing a buy cycle which has a pre-established termination point.
- a program which accepts orders for products and which posts the number of orders accepted within a buy cycle, and
- a program which fills the orders received during a buy cycle.

16) A system for helping customers buy products via the internet comprising,
a web page that lists the price of a product at various volume levels,
means for establishing a buy cycle which has a pre-established termination point,
means which accepts orders for products and which posts the number of orders
accepted within a buy cycle, and
means for filling orders received during a buy cycle.

17) The system recited in claim 1 including reverse action means whereby suppliers bid against each other to offer the best price for the demand.

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[illegible]

[illegible]

ACCOMPANY INC. is the assignee of the invention:

Docket: EWG-086-C.

ACCOMPANY INC., as assignee, hereby appoints the following attorney to prosecute this application and to transact all business connected therewith in the U. S. Patent and Trademark Office.

Send all correspondence to:

Direct telephone calls to: Elmer W. Galbi 503-697-7844

Jonathan Ehrlich
ACCOMPANY INC.
Vice President

My residence, post office address and citizenship are as stated below next to my name.

Entitled: AGGREGATING ON-LINE PURCHASE REQUESTS

Docket Number: EWG-086-C.


I hereby state that I have reviewed and understand the contents of the above identified specifications, including the claims.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations 1.56(a).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made, with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

CLAIM OF PRIORITY BASED ON PREVIOUSLY FILED U.S. APPLICATIONS:

Priority claimed: Co-pending Application filed February 1, 1999, the serial number of which has not yet been received.

Jonathan Ehrlich Canadian  Feb 12/99
Inventor name Citizenship Signature Date

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James Rose	USA		
Inventor name	Citizenship	Signature	Date

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Salim Teja **Canadian** *Salim Teja* Feb 12/99
Inventor name Citizenship Signature Date

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Post Office Address and Residence

Benoit Turgeon **Canadian**  **1999 FEB 12**
inventor name citizenship signature date

104 Hambly Ave, King City, Ontario, Canada L7B 1J1
Post Office Address and Residence

CLAIM OF SMALL ENTITY STATUS

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) and 1.27(c) - SMALL BUSINESS CONCERN

I hereby declare that I am an official empowered to act on behalf of the small business concern identified below:

NAME OF CONCERN: ACCOMPANY INC.

ADDRESS OF CONCERN: 715 Bryant St. #102,,
San Francisco, CA 94107

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third-party or parties controls or has the power to control both.

I hereby declare that the rights under contract or law have been conveyed, to and remain with the small business concern identified above with regard to the invention:

Entitled: AGGREGATING ON-LINE PURCHASE REQUESTS

By inventors: Jonathan Ehrlich, James Rose
Salim Tela, and Benoit Turgeon

Docket: EWG-086-C
described in the specification filed herewith.

No rights to the invention are held by any person who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small business entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: Jonathan Ehrlich

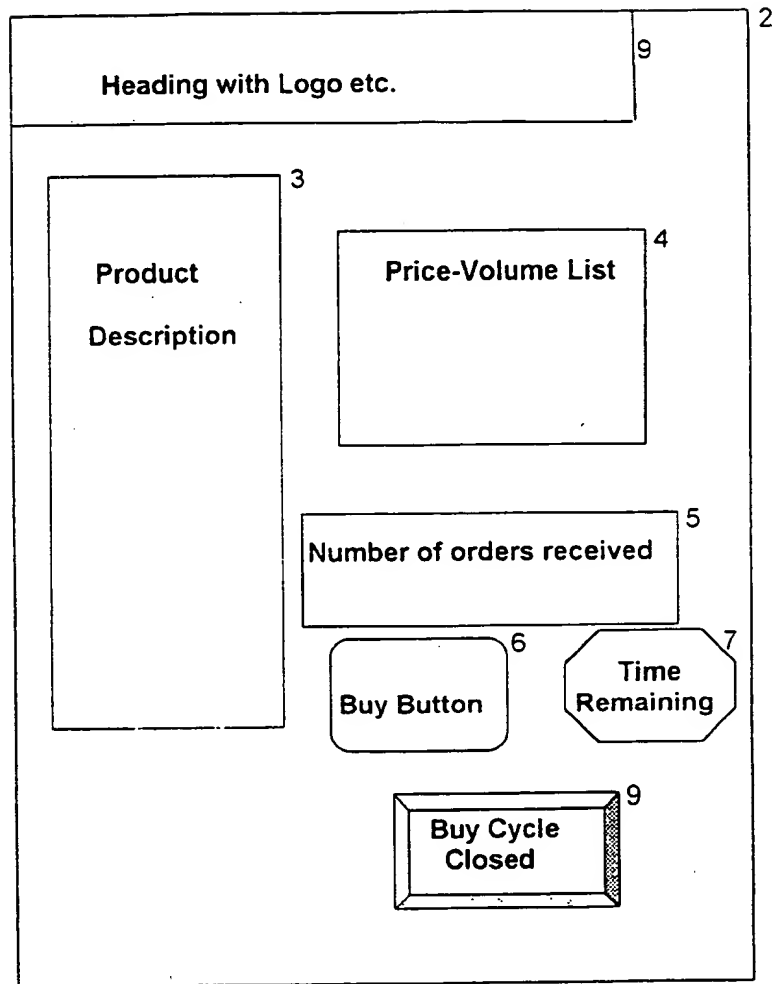
TITLE OF PERSON SIGNING: Vice President

SIGNATURE [Signature]

DATE: REL 12/99

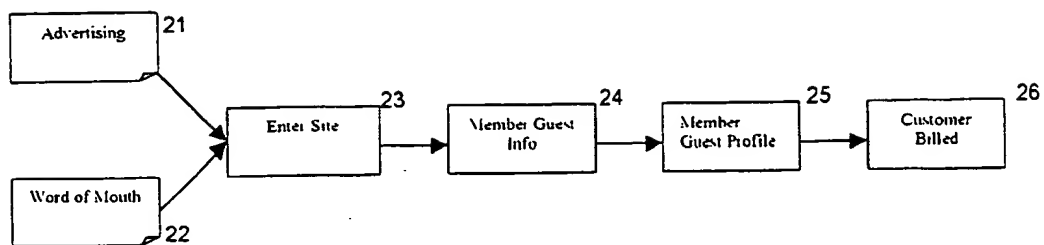
09240727 021399

Figure 1, (Web Page)



00240727.02390
00240727.02390

Figure 2

[illegible]

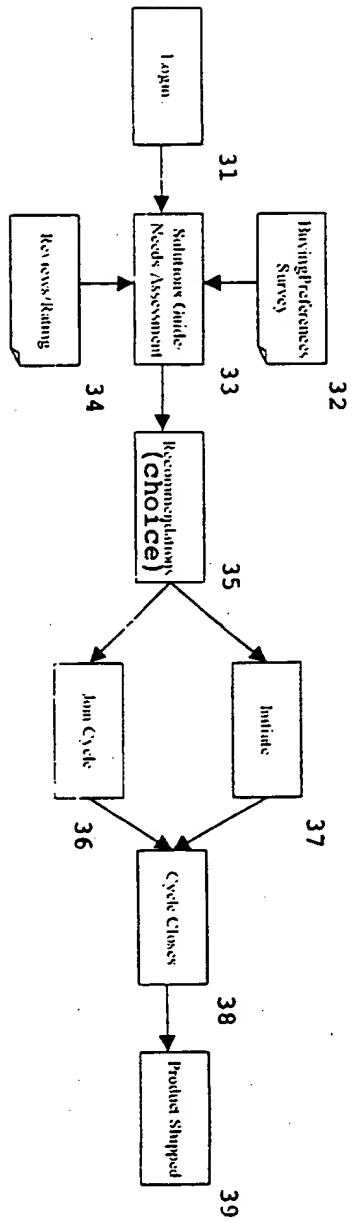


Figure 3

0920487227 02413000

[illegible]

[illegible]

Figure 6

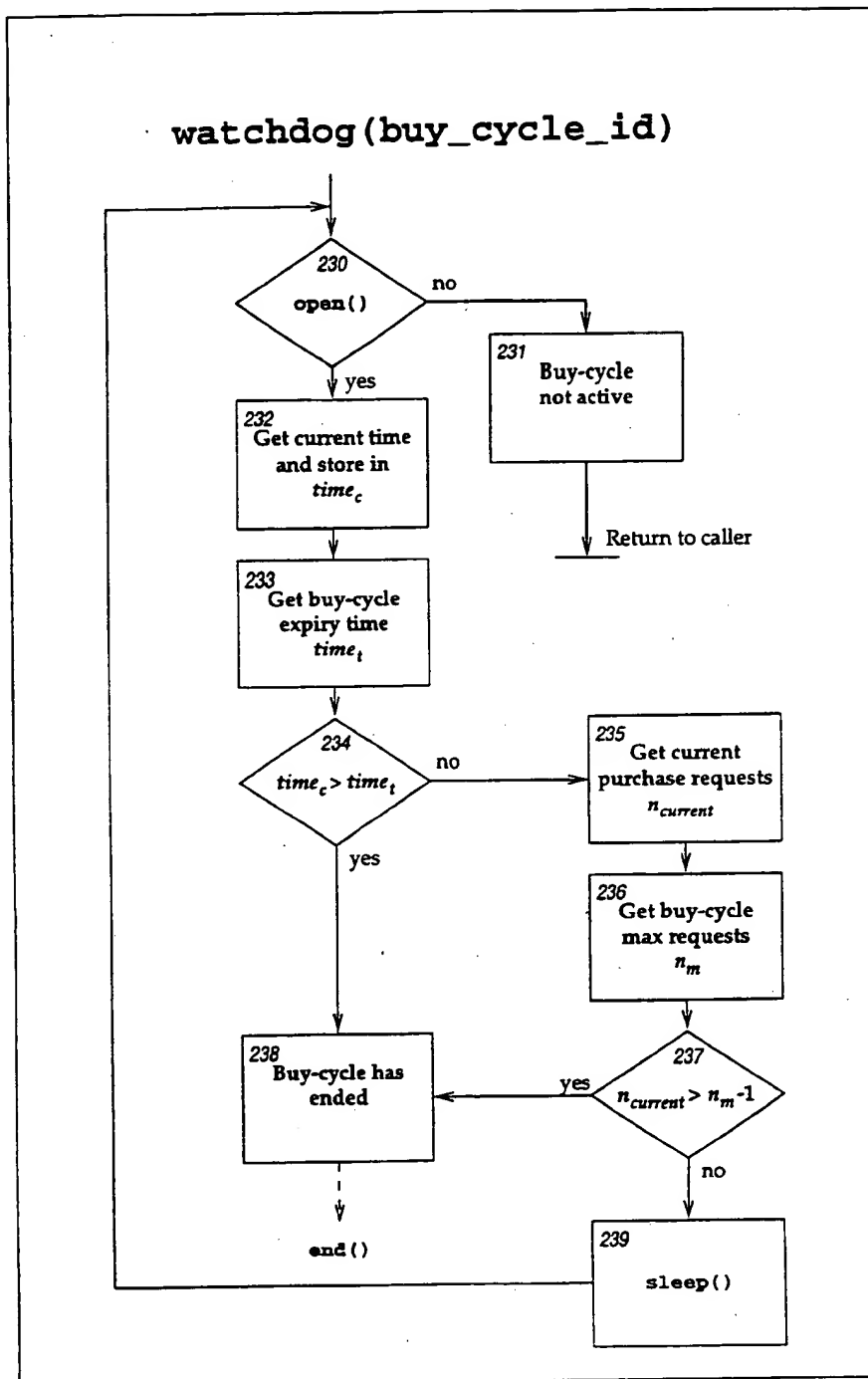


Figure 7

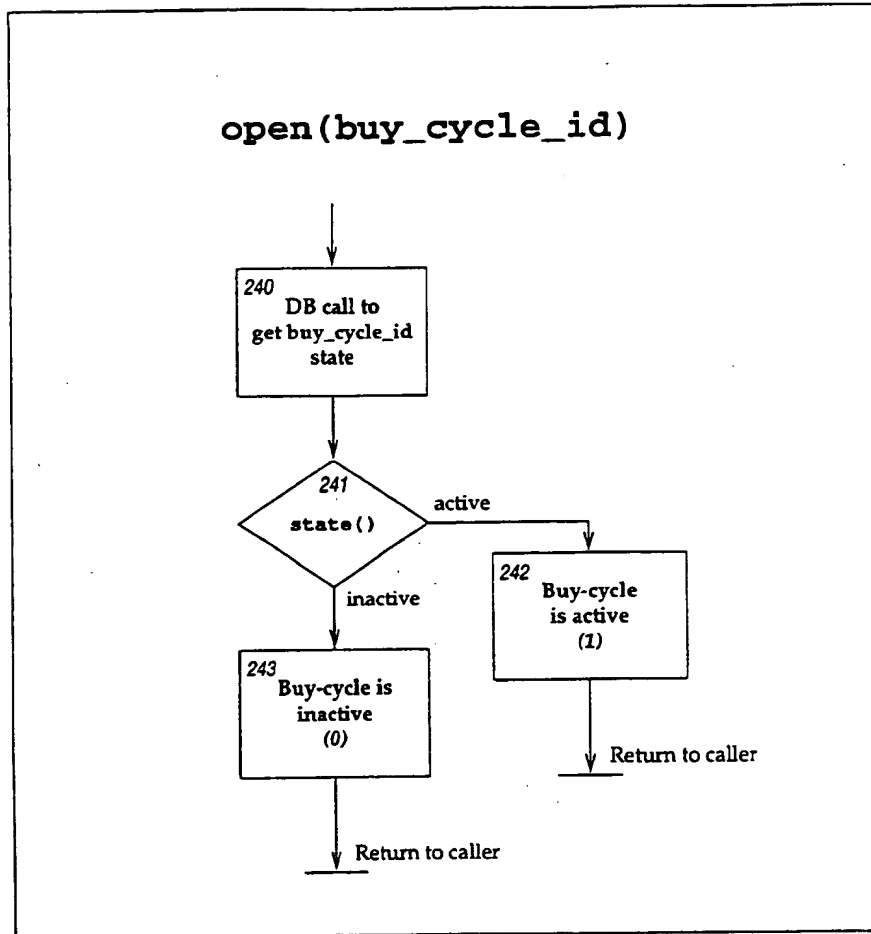




Figure 1 shows a vertical sequence of 12 micrographs documenting the early stages of chick development. The images are labeled 1 through 12. Stage 1 shows a fertilized egg. Stage 2 shows cleavage. Stage 3 shows a two-cell stage. Stage 4 shows a four-cell stage. Stage 5 shows a morula stage. Stage 6 shows a gastrula stage. Stage 7 shows early neurulation. Stage 8 shows late neurulation. Stage 9 shows early hatching. Stage 10 shows late hatching. Stage 11 shows a hatched chick. Stage 12 shows a hatched chick.

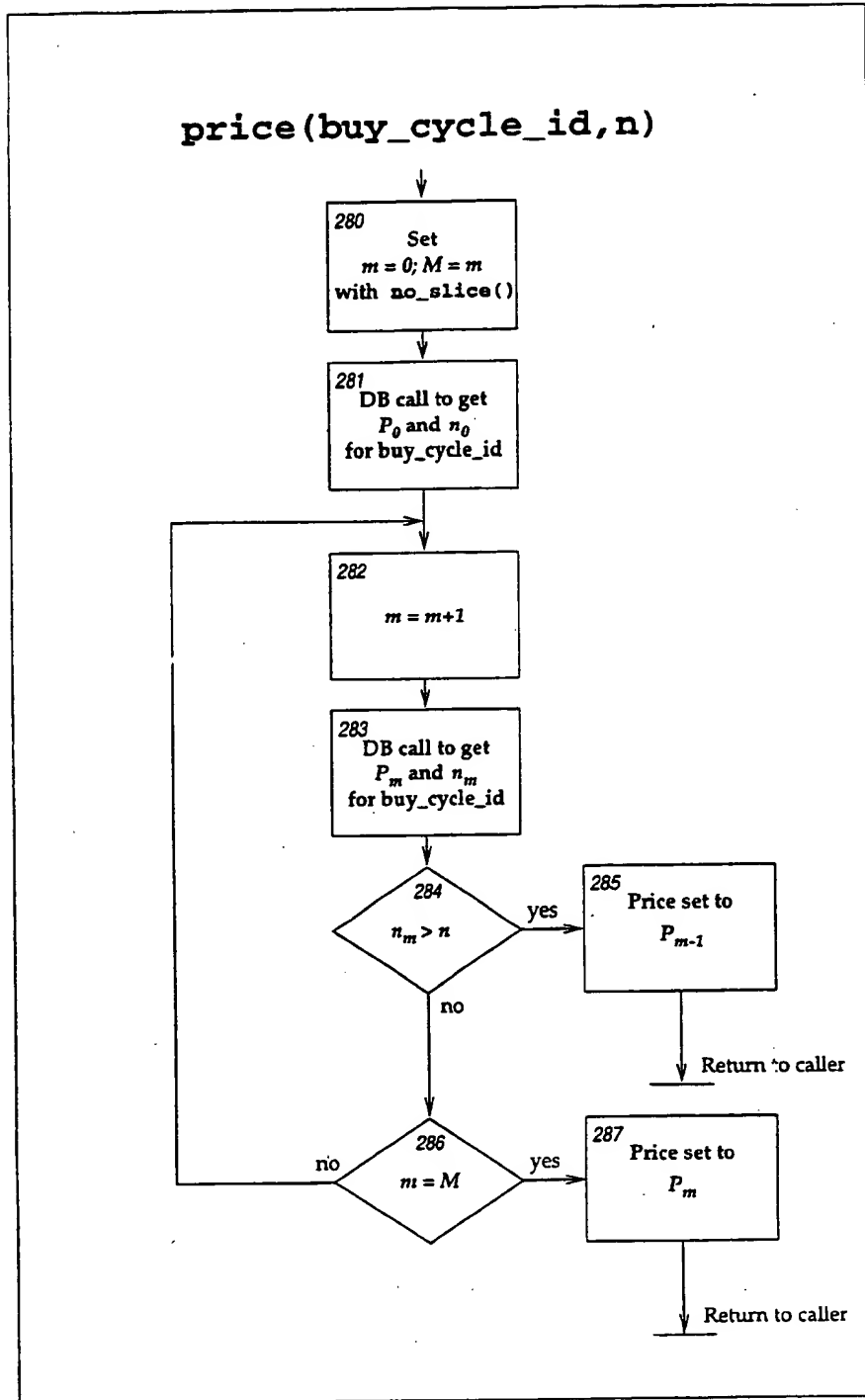


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Figure 11

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1. The first part of the document is a list of references. The references are listed in two columns. The left column contains references 1 through 10, and the right column contains references 11 through 20. The references are as follows:

1. J. H. Van Vleet, <i>et al.</i> , <i>Ann. N.Y. Acad. Sci.</i> , 197 , 1 (1972).	11. J. H. Van Vleet, <i>et al.</i> , <i>Ann. N.Y. Acad. Sci.</i> , 197 , 1 (1972).
2. J. H. Van Vleet, <i>et al.</i> , <i>Ann. N.Y. Acad. Sci.</i> , 197 , 1 (1972).	12. J. H. Van Vleet, <i>et al.</i> , <i>Ann. N.Y. Acad. Sci.</i> , 197 , 1 (1972).
3. J. H. Van Vleet, <i>et al.</i> , <i>Ann. N.Y. Acad. Sci.</i> , 197 , 1 (1972).	13. J. H. Van Vleet, <i>et al.</i> , <i>Ann. N.Y. Acad. Sci.</i> , 197 , 1 (1972).
4. J. H. Van Vleet, <i>et al.</i> , <i>Ann. N.Y. Acad. Sci.</i> , 197 , 1 (1972).	14. J. H. Van Vleet, <i>et al.</i> , <i>Ann. N.Y. Acad. Sci.</i> , 197 , 1 (1972).
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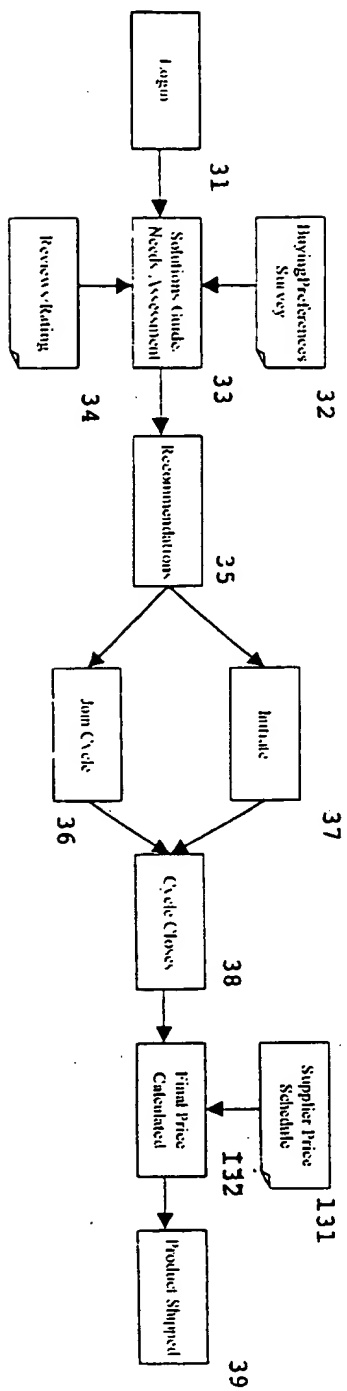


Figure 13

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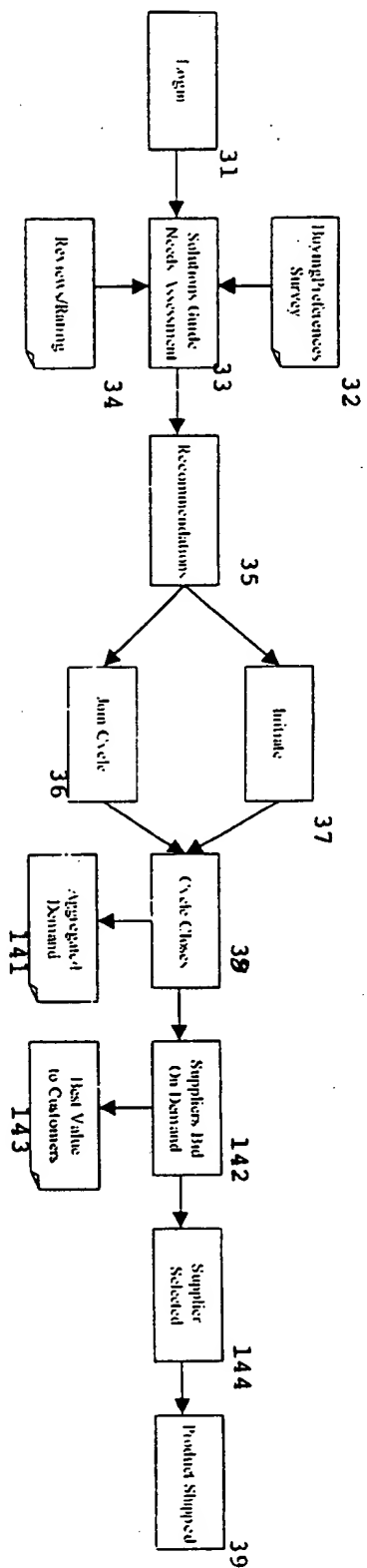


Figure 14

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